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**United States Patent** [19][11] **Patent Number:** **5,771,741****Roy et al.**[45] **Date of Patent:** **Jun. 30, 1998****[54] METHOD FOR TESTING GAS DRIVEN TORPEDOES USING A STEAM DELIVERY SYSTEM****[75] Inventors:** **Peter A. Roy, Warwick; Stephen E. Turner, Newport, both of R.I.****[73] Assignee:** **The United States of America as represented by the Secretary of the Navy, Washington, D.C.****[21] Appl. No.:** **890,503****[22] Filed:** **Jul. 9, 1997****Related U.S. Application Data****[62] Division of Ser. No. 682,877, Jul. 31, 1996.****[51] Int. Cl.<sup>6</sup> ..... G01N 19/00****[52] U.S. Cl. .... 73/167****[58] Field of Search ..... 73/167, 865.9, 73/865.6, 866.9****[56] References Cited****U.S. PATENT DOCUMENTS**1,131,341 3/1915 Dieter ..... 137/505.13  
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A torpedo is provided in a static test fixture where the engine, normally driven by the combustion of otto fuel is driven from a land based source of superheated steam. The torpedo's otto fuel engine is operated on steam and the need for a combustor and other fuel related components is eliminated. Such components are replaced by a steam line and a steam adapter. The torpedo's fuel tank is replaced with an extender section where the steam supply is connected and fed to the steam adapter. The need for storing combustible fuel and oxidizer agents on site is eliminated. The usual support and safety equipment required for handling of otto fuel and explosive devices are also eliminated.

**4 Claims, 4 Drawing Sheets**